

# **technical**

Supporting Enterprise Networks and Operating Environments

# **SUPPORT**

APRIL 1998 VOLUME 6, NUMBER 4

## **PERFORMANCE & TUNING**

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**Optimizing Backup  
Performance**

**Capacity Planning**



## FEATURES

### 8 Capacity Planning: How Accurately Can You Predict the Future?

By Chris Flynn and Jim Foxworthy

Effective planning involves predicting the workloads resulting from new and changed business directions and using the proper analytic models to

determine the future performance of IT.



### 18 Optimizing Your Network Backup Performance: Part I

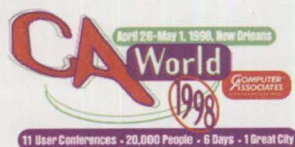
By Ira Goodman

Increasing amounts of mission-critical data are now stored on networked computers. The ability to back up and restore this data completely and quickly with as little administrative hassle as possible has become extremely important. Ideally, backup and restore jobs should run at the limits of today's



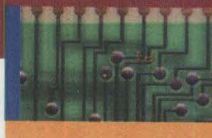
high-speed tape drives and SCSI devices. However, this is often not the case in the real world.

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By Michael H. Carroll

CICS V4R1 offers many new enhancements including storage protection of transaction data through transaction isolation, several file control update restrictions, as well as numerous other facility and command changes to facilitate Year 2000 compliance.

### 28 Using MQSeries for Synchronous Processing: Part I

By Richard Tsujimoto

This article, the first in a two-part series, explores the capabilities and limitations of MQSeries for the development of synchronous messaging applications.

### 34 European Single Currency

By Michael H. Carroll

Beginning on January 1, 1999, member countries of the European Union will move toward using a single unified currency, the euro. This change presents new opportunities and challenges for businesses, individuals, and IT departments in Europe and around the world.

## NETWORKING



### 22 Why ATM and SONET Are Part of Your Future

By Leo A. Wrobel

SONET, the underlying technology for virtually all advanced telecommunications applications, is more than just a passing technology; it is the railroad tracks on which everything else we conceive over the next 30 years will ride, and ATM is the electronic equivalent of the trains on the tracks.

### 38 Integrating Windows NT Into an Existing NetWare Network: Part II

By John E. Johnston

While a great deal of thought, planning and preparation go into establishing a solid TCP/IP foundation for the Windows NT network to utilize, you can streamline your efforts by setting up a DHCP server. This will prevent you from having to manually assign and manage the TCP/IP addresses of your workstations and prepare your site for the installation of a DNS and/or WINS server.

### 46 WinFrame Strategies: Using Load Balance

By Guy C. Yost

Load balancing in a WinFrame environment is a good way to leverage the server farm's ability to host the maximum number of sessions while ensuring that no single server attempts to handle too much. It also provides a level of fault tolerance, admittedly not as transparent or seamless as provided by clustering, but suitable for many applications.



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**FROM THE PUBLISHER**



*Dear NaSPA member,*

Thanks to all of you who visited the NaSPA/*Technical Support* magazine booth at SHARE in Anaheim. Both Editor Amy Novotny and I enjoyed chatting with you and we always welcome your kind words and comments. I am hopeful we also solved a few minor problems brought to our attention by members.

**What Happened at SHARE**

Everyone we spoke to agreed that the sessions were very helpful and timely. Product demonstrations in the SHARE Technology Exchange proved once again that mainframe software developers continue to provide computing centers with time- and money-saving solutions.

Novotny generated numerous new contacts and recruited several new authors for *Technical Support*. SHARE gave her the opportunity to gain insight into today's market and learn what attendees' interests were. If you have a topic you'd like us to cover in *Technical Support*, or you'd like to become an author, I encourage you to contact Novotny at editor@naspa.net for a writers' guide.

**What (Really) Didn't Happen at SHARE**

A regional "expert" claimed Southern California would experience a significant earthquake on Wednesday, February 25 between 5 p.m. and 7 p.m. So, with camera in hand, I ventured outdoors at the prescribed time to get killer photos of the earthquake in action. Came up empty. Oh, well... Anyway, rumor has it that during the early morning hours of the 26th, Southern California experienced an earthquake with a magnitude of 2.0.

**Next Stop - CA-World**

Join NaSPA at CA-World in New Orleans April 26 through April 29. If you haven't signed up yet, check out the CA-World 1998 article on page 44 that outlines each conference offering.

**Upcoming**

In April, we will begin to contact software vendors for inclusion in the *1998 Technical Support Buyers' Guide*. If you are or know of a developer of mainframe software who hasn't been included in our two previous buyers' guides, email me at jerry@naspa.net with contact information. Thank you.

Kindest regards,

Jerry Seefeldt



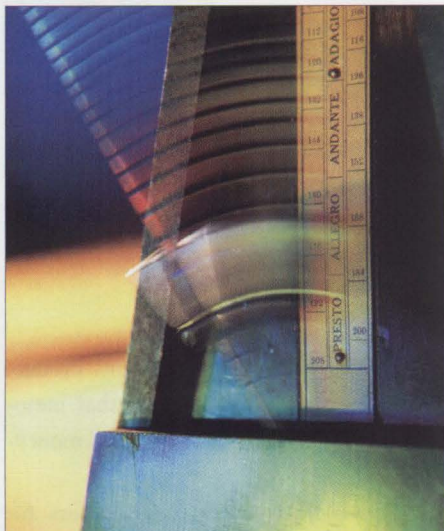


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# OS/2 Tricks

BY RICK BYRLEY

**W**hile there's something to be said about mastery, if you really want to impress your friends and have fun at the same time, it never hurts to learn a trick or two. OS/2, like most software, contains undocumented features. This occurs for a number of reasons: the code wasn't quite stable enough for General Availability, the person documenting the code missed something, or some manager decided that the feature was not worth supporting. These features can only be accessed by those "in the know," so to speak. Besides learning about undocumented features, you can add to your bag of tricks by learning novel uses of common features and commands, kind of like the household secret of using a potato to remove a broken light bulb. In either case, tips and tricks are fun, so this month I thought I'd throw out a few for you.

## SETTING THE DEFAULT BEHAVIOR OF THE DIR COMMAND

One undocumented feature of OS/2 is the DIRCMD environmental variable, which sets the default behavior of the DIR command in command line sessions. In the DOS days one of the signs of a guru was a customized DIR display that used various parameters with the DIR command in batch files to sort files by date or size, or restrict the display to files with certain attributes. While you can't get rid of the batch files yet, you can at least set the default behavior (do you ever get tired of typing DIR /P?) by using the DIRCMD environmental variable. For example, to pause after each screen, set DIRCMD to equal the Pause parameter, e.g., SET DIRCMD=/P. You can use any valid DIR parameter. Separate multiple parameters with spaces; for example: SET

DIRCMD=/P /W /R to pause after each page. Use wide display format and show long filenames on a FAT system. The SET DIRCMD statement can be included in your CONFIG.SYS file to set the system default or it can be set for any individual command line session.

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## USING THE WINDOW LIST TO MINIMIZE AND MAXIMIZE WINDOWS

I would swear I've seen this trick documented, but I couldn't find it in the user's guide or anywhere else while researching this month's column. If it is documented, it must be obscure because I've never seen any one of the countless OS/2 users in my office use this trick. This is rather surprising, since everyone seems to use the Window List constantly to switch between applications. In any case, if you hold down the shift key and

double-click on an object's name in the list you can minimize the window. To maximize the window, hold down the Ctrl key and double-click the object's name. Another nifty tidbit about the Window List is that you can quickly move to the object you want by typing the first letter of the object's name until the right object is highlighted.

## ADDING ITEMS TO THE DESKTOP POP-UP MENU

Although this trick is documented, again, I've rarely seen it used, so I have to assume most people don't know what it can do. You can add items to your Desktop pop-up menu (the menu that appears when you click with the right mouse button on an open area of the Desktop):

- ◆ Open the properties notebook for the Desktop by clicking on the right mouse button on the Desktop and selecting the Properties option.
- ◆ Click on the Menu tab.
- ◆ Under the Available Menus section, select the Primary pop-up menu. Under the Actions menu section, click on Create another....
- ◆ Next, enter the name of the program as you want it to appear on the menu (e.g., "Editor") and the name of the program and its path (if it is not in the PATH statement) in the two entry fields on the dialog.
- ◆ Close the dialog and the properties notebook. Your new menu item will appear on your Desktop pop-up menu at the bottom. This procedure works with any folder.



### SHUTTING DOWN WITHOUT A MOUSE

If you've ever lost your mouse cursor or video (and if you haven't, you will), then this one's for you:


- ◆ Press ALT+ SHIFT+ TAB to select the Desktop as the active object.
- ◆ Press CTRL+ \ to deselect all objects.
- ◆ Press SHIFT+ F10 to invoke the Desktop pop-up menu.
- ◆ Press 'D'. This will shut down your system just as if you'd had both mouse and video. Of course, you could always press CTRL+ALT+ DEL, which, contrary to popular opinion, does perform an orderly shut down of the file system.

### CATASTROPHIC SHUT DOWN

Speaking of CTRL+ALT+DEL, I've been told that pressing CTRL+ALT+NUM-LOCK twice, then CTRL+ALT+DEL when the system prompts for a floppy for a memory dump, produces the cleanest of

all catastrophic shut downs. Although I haven't been able to verify this with anyone "in the know," I've used this technique several times, and in my opinion it does produce a little cleaner shut down.

### GETTING YOUR NAME IN PRINT

Have a tip that you think others could use? I would love to hear it, and I'll bet others would as well. Each month I will include at least one tip or trick as an aside to the column. And, if you have a column idea to share, I'll give you a shot as a guest columnist. So drop me a line at rbyrley@softouch.com. 

*Was this column of value to you? If so, please circle Reader Response Card No. 45.*

*Rick Byrley is senior workstation division technician for Softouch Systems, Oklahoma City, Okla., which provides both mainframe and PC software solutions. His primary focus is object-oriented programming. He can be reached at rbyrley@softouch.com.*

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